



## GEAR

GEAR (<http://gear.athenstech.edu>) is a repository (digital library) of Athens Technical archives materials including photographs and video, open textbooks, open educational resources (OER), classroom materials, training materials, project management resources, examples of student work, and other TAACCCT related documents (including documentation about the software itself) from the ATCx3 Consortia (Athens Technical College, Albany Technical College, and Atlanta Technical College), supported in part by a TAACCCT Grant. TAACCCT Grant material fall into the category of Program Support Materials.

To date GEAR contains over 1500 items. GEAR supports the grant mandates of OER, Creative Commons licensed content, and accessibility as stated in the ATCx3 Consortia Statement of Work (SOW). Additionally, GEAR was developed using national standards for describing content (metadata), so that it is harvestable (can be imported) into Skillscommons.org, thus meeting a larger grant mandate. GEAR was developed, designed, and supported by Robin Fay, Portal Manager (2013-2016).

In addition to that work, GEAR is the home to the online Athens Technical College Archives reflecting some of the digitization efforts of the ATC Library and the Portal Manager. Work on the archives portion of the repository is uncertain, in that funding for this project ends in 2016.

GEAR is built on Omeka, an opensource digital archive/repository software, which means that it has no cost associated with it and it can be built upon with no violation of copyright. Of course, free, does not mean FREE, as there are indirect costs associated with any software - staff time, server space, even electricity to run the servers! (More about Why Omeka was chosen, <http://ctlblog.athenstech.edu/wp-content/uploads/2015/08/whyomeka2.pdf>)

GEAR uses its own special customized design (based upon the default Berlin theme). The template and specific files (custom PHP) are loaded in GEAR as a zip folder. Examples of customized code (available

[https://docs.google.com/document/d/1Ski\\_bLUM0cH28bA2OEIFMbd8t8NMj-26M0nIAs59HPmU/pub](https://docs.google.com/document/d/1Ski_bLUM0cH28bA2OEIFMbd8t8NMj-26M0nIAs59HPmU/pub)) and a list of plugins installed separately ([https://docs.google.com/document/d/1S6plt7MAkEN7xXx\\_8nR1Yq2ZTFijluxyfeH2KoomRujE/edit?usp=sharing](https://docs.google.com/document/d/1S6plt7MAkEN7xXx_8nR1Yq2ZTFijluxyfeH2KoomRujE/edit?usp=sharing)) are included in the technical specifications document.

All graphic design, structure, content description and the following features/functionalities have been added to GEAR through work of the Portal Manager (Robin Fay), increasing the user experience and creating a ease of access:

- Sharing features/social
  - Installed and customized a share across social media for each item in GEAR (Robin Fay, 2015).
  - Installed and customized an embed code for each item in GEAR which facilitates inclusion of individual items in Blackboard and elsewhere. (Robin Fay, 2015)
  - Created a Google form for collecting content and identification of people in photographs \* (Robin Fay, 2015)
  - Tested tagging for photo identification\* (Robin Fay 2015) (tabled; see impact statement)
  - Installed and tested timeline for archival content\* (Robin Fay 2015) (tabled; see impact statement)
  - Installed and tested Google mapping and “pin” to map feature for photographs\* (Robin Fay 2015) (tabled; see impact statement) - since most of the photographs are Athens related, they “stack up” on each other. If time allowed, would customize map to be more detailed and select highlighted items to map to Google maps.
  
- “Flipbook” page turning for the Athens Technical College Yearbooks and Scrapbooks - flip through the pages of the Athens Technical College Yearbooks page by page.
  - Yearbooks were scanned by Biel’s, a regional digitization company in 2015. The multipage tifs scanned to archival specifications, were delivered to the Portal Manager, who created custom scripting (programming commands) in Irfanview software (an image manipulation software) to a break the tifs and make the JPG derivatives for creating the flipbook viewer (Robin Fay, 2015)
  - The Internet Archive Bookreader viewer was installed and customized including customized scripting (Jquery) corrections for display in certain versions of the Firefox browser (Robin Fay, 2016).

- Individual pages within GEAR were created for the Yearbooks in addition to a general Yearbook page. Pages were added to the menu navigation (Robin Fay, 2015).
- Photographs:
  - Embedded slideshow viewers (Jquery; CSS programming language) of photographs for each of the 3 collections created for the Athens Technical College archival photographs, the Athens, Albany, and Atlanta Technical College TAACCCT Grant Collections, in addition to the OER textbook collection (Robin Fay, 2015).
  - Added names as index points where available; photo identification process would help with this (Robin Fay, 2015-2016).
  - Installed and configured a Jquery “zoom” feature for photographs (Robin Fay, 2015).
- Documents
  - Installed and configured an embedded viewer for all documents (Robin Fay, 2015).
  - Create through custom coding (PHP) a Download link which displays the file format type in addition to an icon Hide the download link for OER collection which only contains thumbnails vs. “real” images. (Robin Fay, 2015 -2016).
  - Installed and configured an automatic PDF to OCR (to create full text and support accessibility; Robin Fay, 2015).
- 3D digital objects
  - Added support for 3D digital objects by adding in mime types for special formats (STL files, etc.; Robin Fay, 2016)
  - Identified a free, online viewer for use with 3D digital objects (Robin Fay, 2016).
- Search
  - After testing, found the “simple” search to be limited by the software. Removed simple search and created a more prominent advanced search feature, ensuring a better (more relevant) search experience. (Robin Fay, 2016)
  - Defined Advanced Search removing metadata terminology, simplifying the choices and enhancing the user experience. (Robin Fay, 2016)
  - Created targeted searches for all photographs and also by specific collections. (Robin Fay, 2015)

- Created a Google Customized Search Engine to replace the Simple Search across the entire site (Robin Fay, 2016). Installed the CSE across the site using customized coding (PHP, CSS; Robin Fay).
- Browsability aka Serendipity Search (Robin Fay, 2015-2016)
  - Built a variety of customized searches to facilitate browsing or searching (PHP, CSS; HTML).
  - Built Browse by tags and restyled (CSS: Font Size, Color, Line Height, Padding) to create an easier to read display
  - Installed Browse by Subjects plugin and created pages
- Content
  - Collected content from all 3 institutions, providing guidelines for inclusion in the repository. Work with Instructional Designers, Faculty and others across 3 campuses, ensuring an inclusive process.
  - TAACCCT content is tagged appropriately to match up with the national repository, skillscommons.org - 210 items, although approximately 75 will be harvested (Robin Fay, 2016)
  - Assisted in scanning and developing workflows for digitizing of ATC Archives material to ensure they meet national archival standards for handling, processing, and digitization.
  - Wrote MySQL /Access Report for newspaper clipping database (ATC Archives) and created CSV mappings for GEAR (Robin Fay, 2015); approximately 450 items.
  - Imported, created metadata and enriched metadata for photographs and other content (approximately 1000 items) including OER textbooks (75 items) and photographs (PR Collection; Athens Archives) ensuring that content is indexable and findable.
  - Post production work for Grant material and Archives
    - Photograph processing via Photoshop including straightening/flipping images (where applicable), cropping, tone/value/color correction, sharpening, removing JPG artifacts, scan lines, and other noise.
    - Create PDFs for Grant textual materials in non-PDF formats; spot check accessibility and OCR
  - Content described using appropriate national standards for materials (Robin Fay, 2015-2016). 1300+ items are now located in GEAR.
  - Created language for rights statement and provenance following appropriate national standards.
  - Created metadata mapping between MARC/DCMI/Dublin Core to ensure harvesting will be successful (Robin Fay, 2015).

- Contacted national repository group and began working with representative on mapping to ensure grant mandate compliance (Robin Fay, 2016).
- Ease of use
  - Built navigation, information architecture, and menus (Robin Fay, 2015).
  - Completed beta usability testing including mobile design. Reworked home page to be more responsive (scales on mobile); Robin Fay, 2015).
  - Accessibility testing - passed checks for accessibility except for the Google search button (3rd party). Attempting to overlay some coding to address this fail point.
  - Fulltext searchability, subject headings (controlled vocabularies) following national standards; tagging to provide additional support
  - APIs and OAI Harvesting protocols put into place
  - Installed and configured 26 plugins (additional pieces of software; see [https://docs.google.com/document/d/1S6plt7MAkEN7xXx\\_8nR1Yq2ZTFIjluxyfeH2KomRujE/edit](https://docs.google.com/document/d/1S6plt7MAkEN7xXx_8nR1Yq2ZTFIjluxyfeH2KomRujE/edit) ).
  - Created overviews of the project (Robin Fay, 2015-2016).
- Documentation
  - Write documentation for all project process, technical specs, workflows, and other project related documents

#### Impact of lack of future support

- Future projects that have been tabled:
  - No additional uploads of content; the library has scanned about 1000 photographs, with a remaining 3000 slides to scan. There is no index or list to the photographs and slides other than those which have been loaded into GEAR and describing using appropriate standards (Robin Fay, 2015-2016).
  - A social media project to identify people in photographs which could have been a big alumni/foundation campaign in addition to providing enhanced access to the resources in the Archives
  - Potential harvest of content to Merlot, Digital Library of Georgia, Digital Public Library of Georgia, and other archival repositories
  - Building of a better backend to facilitate a more efficient workflow
  - Training of library staff in standards and workflows to take on the description (metadata) work of this project
  - Upgrading and maintenance of the core software (Omeka, 2.2.1)

- Turn customized code into plugins that can be shared back with the Omeka community
- Writing a technical manual for GEAR
- Promotion and social media sharing

For more information about the archives

<http://ctlblog.athenstech.edu/digitizing-our-past-atc-archives/>

For more information about GEAR and the TAACCCT Grant, please visit

<http://ctlblog.athenstech.edu/initiatives/taaccct-grant/>

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